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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,601	07/30/2002	Hsu-Feng Ho	MTKP0018USA	5133
27765	7590	11/10/2005	EXAMINER	
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116			AGUSTIN, PETER VINCENT	
			ART UNIT	PAPER NUMBER
			2652	
DATE MAILED: 11/10/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/064,601

Applicant(s)

HO, HSU-FENG

Examiner

Peter Vincent Agustin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-17 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-17 and 19 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/20/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-17 & 19 are now pending, with claims 1-11 withdrawn from further consideration due to a previous restriction requirement.

Election/Restrictions

2. This application contains claims drawn to an invention nonelected with traverse in the amendment dated February 25, 2005. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.
3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Drawings

4. Replacement drawings were received on September 8, 2005. These drawings are acceptable.

Specification

5. The disclosure is objected to because of the following informalities:
Paragraphs 44 & 45: "look-up table" should be --look-up table 50--.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

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pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 17 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 17 recites the limitation “setting an RF equalizer signal and a differential phase detector (DPD) equalizer signal”. There is no disclosure of how this is achieved so as to enable one of ordinary skill in the art to make and use the invention. In an attempt to overcome the previous rejection, the Applicant has amended claim 17 to recite “referencing a lookup table stored in the controller according to the target frequency for setting an RF equalizer signal and a differential phase detector (DPD) equalizer signal”. However, despite of this amendment, there is still no mention of what frequencies correspond to RF equalizer signal values or what frequencies correspond to differential phase detector equalizer values, as noted in the previous Office Action. Therefore, the 112-1st paragraph rejection is maintained.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 12-16 & 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xu (TW 494400) (see translation) in view of Hayashi et al. (US 6,285,640).

In regard to claim 12, Xu discloses a method for controlling an optical disk drive, the method comprising: monitoring a data phase-locked loop (DPLL) signal (Figure 2, output of element 16); generating a first control signal (VT) based on an eight-to-fourteen modulation (EFM) signal and the DPLL signal; generating the DPLL signal based on the first control signal (note the loop formed by elements 11, 12, 13, 14, 18 & 16 only); calculating a target frequency of the DPLL signal for a target track (note the loop formed by elements 16, 17, 19, 15 & 18); generating a second control signal (RVT(FR)) based on the target frequency; and generating the DPLL signal based on the second control signal (output of element 16 after being processed by elements 17, 19, 15 & 18).

In regard to claim 14, Xu discloses frequency dividing a frequency of the DPLL signal (Figure 2, element 16 is a frequency divider).

In regard to claim 15, Xu discloses setting charge pump currents (performed by element 13) of a frequency detector (12) and a phase detector (11) according to the target frequency.

In regard to claim 16, Xu discloses that calculating the target frequency references a track number and a media type of the optical disk drive. As known in the art, the DPLL signal of Xu will vary depending on the position of an optical pickup with respect to the center of the disc (i.e., the claimed "track number") and depending on the "media type". Therefore, since the target frequency is calculated from the DPLL signal, it is understood that "calculating the target frequency references a track number and a media type of the optical disk drive" as claimed.

However, Xu does not explicitly disclose: in regard to claim 12, generating the DPLL signal based on the first control signal **when the optical disk drive is in a non-seek mode** and calculating a target frequency of the DPLL signal for a target track **when the optical disk drive**

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is in a seek mode for track seeking; and in regard to claim 13, detecting when a rotation speed of a spindle of the optical disk drive changes; and generating the DPLL signal based on the second control signal when the rotation speed of the spindle of the optical disk drive changes.

Hayashi et al. disclose: in regard to claim 12, generating a DPLL signal based on a first control signal when an optical disk drive is in a non-seek mode (column 3, lines 46-55: “a PLL device in which two control voltages to be input to a VCO circuit are prepared, one control voltage is input to one input voltage to perform conventional control”; column 3, lines 54-55: “normal reproduction mode”) and *using a second control signal* when the optical disk drive is in a seek mode for track seeking (column 3, lines 46-55: “and the other control voltage which changes gradually to follow changes in data rate is input to the other input terminal”; column 3, line 55: “seek mode”); and in regard to claim 13, detecting when a rotation speed of a spindle of the optical disk drive changes (see Figure 4, element 45); and generating the DPLL signal based on the second control signal when the rotation speed of the spindle of the optical disk drive changes (see column 10, lines 35-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention by the Applicant to have applied the teachings of Hayashi et al. to the method of Xu, the motivation being to provide a PLL device that satisfies both the conditions required for the VCO circuit in the normal reproduction mode and the seek mode, thereby ensuring compatibility and reliability (column 3, lines 46-55).

Claim 19 has limitations similar to those of claims 12 & 13; thus, it is rejected on the same basis.

Response to Arguments

10. On page 9, lines 18-20, the Applicant states "To comply with the enablement requirement, claim 18 is cancelled and currently amended claim 17 is revised to include utilizing a look-up table to determine the RF equalizer signal and the differential phase detector (DPD) equalizer signal". However, despite of this amendment, there is still no disclosure of how the limitation "setting an RF equalizer signal and a differential phase detector (DPD) equalizer signal" is achieved so as to enable one of ordinary skill in the art to make and use the invention. For example, there is no mention of what frequencies correspond to RF equalizer signal values or what frequencies correspond to differential phase detector equalizer values, as noted in the previous Office Action. Therefore, the 112-1st paragraph rejection is maintained.

11. Applicant's arguments with respect to claims 12-16 & 19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

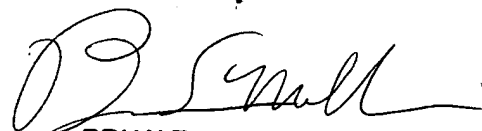
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Vincent Agustin whose telephone number is 571-272-7567.

The examiner can normally be reached on Monday-Friday 9:30-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. L. Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peter Vincent Agustin
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BRIAN E. MILLER
PRIMARY EXAMINER